



TW

PATENT
Customer No. 22,852
Attorney Docket No. 05725.1602-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
Timo LUUKAS)
) Group Art Unit: 1615
Application No.: 10/593,970)
) Examiner: Michael P. Woodward
Filed: September 22, 2006)
) Confirmation No.: 4038
For: COMPOSITION COMPRISING A)
MONOMER COMPOUND)
EXHIBITING AN OPTICAL)
PROPERTY, METHOD MAKING)
USE OF SAID COMPOSITION, A)
MONOMER COMPOUND AND A)
POLYMER CONTAINING SAID)
MONOMER COMPOUND AND THE)
USE THEREOF)

REQUEST FOR CORRECTED PATENT APPLICATION PUBLICATION
UNDER 37 C.F.R. § 1.221(b)

The U.S. Patent and Trademark Office published the above-identified Application No. 10/593,970 as Publication No. US 2008/0226581 A1 on September 18, 2008. The published application contains a mistake that is the fault of the Office and may be material. Attached hereto is a copy of both the relevant page of the originally filed application and a marked-up copy of the corresponding page of the published application containing the mistakes.

A mistake is material when it affects the public's ability to appreciate the technical disclosure of the patent application publication or determine the scope of the provisional

rights that an applicant may seek to enforce upon issuance of a patent. See
37 C.F.R. § 1.221(b).

The mistake, which is indicated in red ink on the relevant page of the marked-up
copy of the published application attached hereto, is as follows:

-- page 30, column 2, lines 10-44, should be moved and inserted at page 30,
column 1, line 30, after the word "methoxypropyl,".

The mistake may affect the scope of the claims or the public's ability to determine the
same.

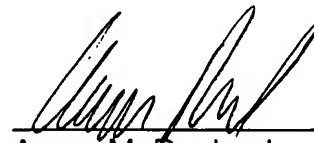
For at least the foregoing reasons, Applicant requests that the Office correct the
above-identified mistake in the published application, which is the fault of the Office.
Further, Applicant requests that the Office forward to Applicant a copy of the corrected
published application or at least a notification of the occurrence or predicted occurrence
of the corrected publication once the mistake has been corrected.

Applicant believes that no Petition or fee is due in connection with this Request,
however, if any Petition or fee is due, please grant the Petition and charge the fee to our
Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By:



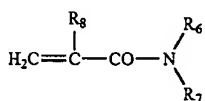
Aaron M. Raphael
Reg. No. 47,885

Dated: November 17, 2008

is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups $\text{Si}(\text{R}_4\text{R}_5)$, in which R_4 and R_5 , which may be identical or different, represent a C_1 to C_6 alkyl group or a phenyl group,

R'_3 may also be a group $-(\text{C}_2\text{H}_4\text{O})_m-\text{R}''$, with $m=5$ to 150 and $\text{R}''=\text{H}$ or C_1 to C_{30} alkyl, for example $-\text{POE-methyl}$ or $-\text{POE-behenyl}$;

(iii) the (meth)acrylamides of formula:



in which R_8 denotes H or methyl; and R_7 and R_6 , which may be identical or different, represent:

a hydrogen atom; or

a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups $\text{Si}(\text{R}_4\text{R}_5)$, in which R_4 and R_5 , which may be identical or different, represent a C_1 to C_6 alkyl group or a phenyl group;

R_6 and/or R_7 may especially be a methyl, ethyl, propyl, n-butyl, isobutyl, tert-butyl, hexyl, ethylhexyl, octyl, lauryl, isooctyl, isodecyl, dodecyl, cyclohexyl, t-butylcyclohexyl or stearyl group; 2-ethylperfluorohexyl; or a C_{1-4} hydroxyalkyl group such as 2-hydroxyethyl, 2-hydroxybutyl or 2-hydroxypropyl; or a (C_{1-4}) alkoxy(C_{1-4})alkyl group such as methoxyethyl, ethoxyethyl or methoxypropyl, represent a C_1 to C_6 alkyl group or a phenyl group;

a C_3 to C_{12} cycloalkyl group such as isobornyl or cyclohexane,

a C_3 to C_{20} aryl group such as phenyl,

a C_4 to C_{30} aralkyl group (C_1 to C_8 alkyl group) such as 2-phenylethyl; benzyl,

a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,

a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl,

said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched 1 to 4 C alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups $\text{Si}(\text{R}_4\text{R}_5)$ in which R_1 and R_2 , which may be identical or different, represent a C_1 to C_6 alkyl group, or a phenyl group;

(v) (meth)acrylic, (meth)acrylamide or vinyl monomers containing a fluoro or perfluoro group, such as ethylperfluorooctyl or 2-ethylperfluorohexyl (meth)acrylate;

(vi) silicone-based (meth)acrylic, (meth)acrylamide or vinyl monomers, such as methacryloxypropyltris(trimethylsiloxy)silane or acryloxypropylpolydimethylsiloxane;

(vii) ethylenically unsaturated monomers comprising at least one carboxylic, phosphoric or sulfonic acid, or anhydride, function, for instance acrylic acid, methacrylic acid, crotonic acid, maleic anhydride, itaconic acid, fumaric acid, maleic acid,

a C_3 to C_{12} cycloalkyl group, such as an isobornyl group,

a C_3 to C_{20} aryl group such as a phenyl group,

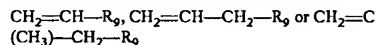
a C_4 to C_{30} aralkyl group (C_1 to C_8 alkyl group) such as 2-phenylethyl, t-butylbenzyl or benzyl,

a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,

a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl,

said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched C_1 - C_4 alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups $\text{Si}(\text{R}_4\text{R}_5)$, in which R_4 and R_5 , which may be identical or different, represent a C_1 to C_6 alkyl group, or a phenyl group;

(iv) the vinyl compounds of formulae:



in which R_9 is a hydroxyl group, halogen (Cl or F), NH_2 , OR_{10} in which R_{10} represents a phenyl group or a C_1 to C_{12} alkyl group (the monomer is a vinyl or allylic ether); acetamide(NHCOCH_3); a group OCOR_{11} in which R_{11} represents a linear or branched alkyl group of 2 to 12 carbons (the monomer is a vinyl or allylic ester); or a group chosen from:

a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups $\text{Si}(\text{R}_4\text{R}_5)$, in which R_4 and R_5 , which may be identical or different, acrylamidopropanesulfonic acid, vinylbenzoic acid and vinylphosphoric acid, and the salts thereof;

(viii) ethylenically unsaturated monomers comprising at least one tertiary amine function, for instance 2-vinylpyridine, 4-vinylpyridine, dimethylaminoethyl methacrylate, diethylaminoethyl methacrylate or dimethylaminoethyl methacrylamide, and the salts thereof.

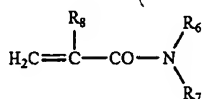
54. The polymer as claimed in claim 53, characterized in that the additional comonomer(s) is (are) present in an amount of from 30% to 99.99% by weight, especially in an amount of from 50% to 99.9% by weight, in particular from 70% to 99.5% by weight or even from 80% to 99% by weight and better still from 90% to 98% by weight relative to the weight of the final polymer.

55. The polymer as claimed in one of claims 47 to 54, characterized in that the additional comonomers are chosen, alone or as a mixture, from C_1 - C_{18} alkyl or C_3 - C_{12} cycloalkyl (meth)acrylates, and especially from methyl acrylate, methyl methacrylate, isobornyl acrylate, isobornyl methacrylate,

is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group or a phenyl group,

R'₃ may also be a group —(C₂H₄O)_m—R'', with m=5 to 150 and R''=H or C₁ to C₃₀ alkyl, for example —POE-methyl or —POE-behenyl;

(iii) the (meth)acrylamides of formula:



in which R₈ denotes H or methyl; and R₇ and R₆, which may be identical or different, represent:

a hydrogen atom; or

a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F), and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group or a phenyl group;

R₆ and/or R₇ may especially be a methyl, ethyl, propyl, n-butyl, isobutyl, tert-butyl, hexyl, ethylhexyl, octyl, lauryl, isoocetyl, isodecyl, dodecyl, cyclohexyl, t-butylcyclohexyl or stearyl group; 2-ethylperfluorohexyl; or a C₁₋₄ hydroxyalkyl group such as 2-hydroxyethyl, 2-hydroxybutyl or 2-hydroxypropyl; or a (C₁₋₄)alkoxy(C₁₋₄)alkyl group such as methoxyethyl, ethoxyethyl or methoxypropyl, represent a C₁ to C₆ alkyl group or a phenyl group;

a C₃ to C₁₂ cycloalkyl group such as isobornyl or cyclohexane,

a C₃ to C₂₀ aryl group such as phenyl,

a C₄ to C₃₀ aralkyl group (C₁ to C₈ alkyl group) such as 2-phenylethyl; benzyl,

a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,

a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl,

said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched 1 to 4 C alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₄R₅) in which R₁ and R₂, which may be identical or different, represent a C₁ to C₆ alkyl group, or a phenyl group;

(v) (meth)acrylic, (meth)acrylamide or vinyl monomers containing a fluoro or perfluoro group, such as ethylperfluorooctyl or 2-ethylperfluorohexyl (meth)acrylate;

(vi) silicone-based (meth)acrylic, (meth)acrylamide or vinyl monomers, such as methacryloxypropyltris(trimethylsiloxy)silane or acryloxypropylpolydimethylsiloxane;

(vii) ethylenically unsaturated monomers comprising at least one carboxylic, phosphoric or sulfonic acid, or anhydride, function, for instance acrylic acid, methacrylic acid, crotonic acid, maleic anhydride, itaconic acid, fumaric acid, maleic acid,

a C₃ to C₁₂ cycloalkyl group, such as an isobornyl group, a C₃ to C₂₀ aryl group such as a phenyl group,

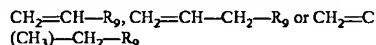
a C₄ to C₃₀ aralkyl group (C₁ to C₈ alkyl group) such as 2-phenylethyl, t-butylbenzyl or benzyl,

a 4- to 12-membered heterocyclic group containing one or more heteroatoms chosen from O, N and S, the ring being aromatic or non-aromatic,

a heterocycloalkyl group (1 to 4 C alkyl), such as furfurylmethyl or tetrahydrofurfurylmethyl,

said cycloalkyl, aryl, aralkyl, heterocyclic or heterocycloalkyl groups possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms and linear or branched C₁-C₄ alkyl groups in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P, said alkyl groups also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, represent a C₁ to C₆ alkyl group, or a phenyl group;

(iv) the vinyl compounds of formulae:



in which R₉ is a hydroxyl group, halogen (Cl or F), NH₂, OR₁₀ in which R₁₀ represents a phenyl group or a C₁ to C₁₂ alkyl group (the monomer is a vinyl or allylic ether); acetamide(NHCOCH₃); a group OCOR₁₁ in which R₁₁ represents a linear or branched alkyl group of 2 to 12 carbons (the monomer is a vinyl or allylic ester); or a group chosen from:

a linear or branched alkyl group of 1 to 18 carbon atoms, in which is (are) optionally intercalated one or more heteroatoms chosen from O, N, S and P; said alkyl group also possibly being optionally substituted with one or more substituents chosen from hydroxyl groups, halogen atoms (Cl, Br, I and F) and groups Si(R₄R₅), in which R₄ and R₅, which may be identical or different, acrylamidopropanesulfonic acid, vinylbenzoic acid and vinylphosphoric acid, and the salts thereof;

(viii) ethylenically unsaturated monomers comprising at least one tertiary amine function, for instance 2-vinylpyridine, 4-vinylpyridine, dimethylaminoethyl methacrylate, diethylaminoethyl methacrylate or dimethylamino-propylmethacrylamide, and the salts thereof.

54. The polymer as claimed in claim 53, characterized in that the additional comonomer(s) is (are) present in an amount of from 30% to 99.99% by weight, especially in an amount of from 50% to 99.9% by weight, in particular from 70% to 99.5% by weight or even from 80% to 99% by weight and better still from 90% to 98% by weight relative to the weight of the final polymer.

55. The polymer as claimed in one of claims 47 to 54, characterized in that the additional comonomers are chosen, alone or as a mixture, from C₁-C₁₈ alkyl or C₃-C₁₂ cycloalkyl (meth)acrylates, and especially from methyl acrylate, methyl methacrylate, isobornyl acrylate, isobornyl methacrylate,

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